CONTENTS

JANUARY VOLUME 85, NUMBER 1 1993

H. Sumi and Y. Kayanuma — 1 Is the Lorentz model applicable to optical absorption by excitons?

K. Yamamoto, S. Egusa, M. Sugiuchi and A. Miura — 5 Photogeneration mechanism of charged carriers in copper–phthalocyanine thin films

M. Manninen, J. Mansikka-aho, S. N. Khanna and P. Jena — 11 Band structures of solids composed of metal clusters

R. Ramírez-Bon, F. Sánchez-Sinencio, G. González de la Cruz and O. Zelaya — 15 Transient photoconductivity in CdTe films grown by the hot wall flash evaporation technique

J. Dreyhsig, K. Klein, H.-E. Gumlich and J. W. Allen — 19 Influence of stacking faults on d^7 internal transitions in ZnS:Co

A. V. Rodina — 23 A^+-center and exciton bound to neutral acceptor in diamond-like semiconductors

R. M. Mehra, G. Kaur and P. C. Mathur — 29 Effect of antimony impurity on photoconduction in thin films of Se–Te system

F. G. Bass and V. A. Pogrebnyak — 33 Hot electron scattering by localized optical modes in polar semiconductors

B. A. Kolesov, L. I. Yudanova and L. P. Kozeeva — 37 The connection between the oxygen content and ionic radius of dopants, substituting Cu(1) in Y(1 2 3)

D. B. Tran Thoai — 39 Hydrogenic donor states in semiconductor microcrystallites

S. Singh, R. C. Srivastava, P. Chand, D. C. Khan and P. E. Wigen — 45 Electrical and magnetic properties of $Zn_xCa_{1-x}Fe_2O_4$ (x = 0.0–1.0) system

Shi Yin, N. J. Long and G. Bergmann — 51 Externally induced jumps in the magneto-fingerprints of nano-structures

Jinxi Shen, Guozhen Zheng, Shaoling Guo and Dingyuan Tang — 57 Acceptor influenced transport behavior of P–$Hg_{0.935}Mn_{0.065}Te$

K. Nuroh — 61 Electron energy loss spectrum of cerium

H. Cruz — 65 Resonant tunneling through parabolic quantum wells achieved by means of short period superlattices

K. Tanaka, A. A. Zakhidov, K. Yoshizawa, K. Okahara, T. Yamabe, K. Kikuchi, S. Suzuki, I. Ikemoto and Y. Achiba — 69 Magnetic properties of higher fullerides TDAE-C_{84}, -C_{90} and -C_{96}

i Instructions for Authors on the Preparation of Camera-Ready Manuscripts for *Solid State Communications*

Vol. 85, Nos 1–12 Contents

JANUARY VOLUME 85, NUMBER 2 1993

E. Grivei, B. Nysten, M. Cassart, A. Demain and J-P. Issi — 73 Specific heat of fullerenes extract

A. K. Santra, Ram Seshadri, V. Vijayakrishnan and C. N. R. Rao — 77 Interaction of solid films of C_{60} and C_{70} with nickel

K. G. Efthimiadis and I. A. Tsoukalas — 81 On the magnetic properties of $Ni_3Fe_cAl_{1-c}$ alloys during the transition from the strong to very weak ferromagnetic behaviour

K. Yoshino, X. H. Yin, S. Morita, T. Kawai and A. A. Zakhidov — 85 Enhanced photoconductivity of C_{60} doped poly-(3-alkylthiophene)

Jing-Nan Liu, Bing-Lin Gu and Ru-Shan Han — 89 Electronic structures of $C_{60}Br_6$, $C_{60}Br_8$, $C_{60}Br_{24}$

F. M. Mulder, E. A. v.d. Zeeuw, R. C. Thiel and G. Schmid — 93 Physical properties of metal cluster compounds VI: the influence of the ligands on the ^{197}Au Mössbauer spectra of three different Au_{55} molecular clusters

R. Allub and B. Alascio — 99 Metal–insulator transition in mixed valence gold compounds

H. Jhans, S. K. Malik and R. Vijayaraghavan — 105 Magnetic properties of $PrBa_2Cu_2MO_{8-y}$ (M = Ta,Nb)

Hongsik Jeong, In-Ja Lee, Jung-Chul Seo, Minyung Lee, Dongho Kim, Seong-Ju Park, Seung-Han Park and Ung Kim — 111 Temperature and size dependent excitonic relaxation process in GaAs/AlGaAs quantum wells

C. R. Leavens — 115 On the Olkhovsky–Recami approach to the "tunneling time problem"

Wang Xue-mei and Zhang Dian-lin — 121 Second threshold, switching and sharp current–voltage characteristics of $Rb_{0.30}MoO_3$ at 77 K

N. Vouroutzis and C. Manolikas — 125 On the formation mechanism of antiphase boundaries with well defined crystallographic orientations

I. G. Lang, S. T. Pavlov and A. V. Prokhorov — 129 The increase of the binding probability of free electron and hole into Wannier–Mott exciton in a strong magnetic field

A. G. Breñosa, F. Rodríguez and M. Moreno — 135 Phase transition temperatures and thermal hysteresis in $NH_4Cl_{1-x}Br_x$ ($x \leq 0.05$) crystals determined through charge transfer spectra of Cu^{2+} (II) centres

Kyung Seon Baek, Hyung Choi, Hyun Youn, Hang Nam Ok and Chul Sung Kim — 141 Crystallographic and magnetic properties of $Fe_{0.5}Cu_{0.5}Cr_2Se_xS_{4-x}$

Ji-Zhong Xu — 145 The fluctuation–dissipation theory of the kink in hydrogen-bonded chains

N. E. Christensen — 151 The body-centered tetragonal high-pressure phase of tin

Y. Lépine and R. Gutiérrez — 155 Tight-binding optical polaron in the adiabatic limit

T. Tiedje, J. R. Dahn, Y. Gao, K. M. Colbow, E. D. Crozier, D. T. Jiang and W. Eberhardt — 161 Bragg reflection model for X-ray absorption near edge structure in crystalline solids

B. Clerjaud, D. Côte, L. Svob, Y. Marfaing and R. Druilhe — 167 Hydrogen–acceptor pairing in CdTe epitaxial layers grown by OMVPE

D. J. Quesnel, D. S. Rimai and L. P. DeMejo — 171 The Poisson ratio for an FCC Lennard–Jones solid

P. Tronc, B. Reid, R. Maciejko, J. L. Leclercq and J. L. Lazzari — 177 Optical properties and fluctuations of composition in $Ga_{0.77}In_{0.23}As_{0.19}Sb_{0.81}$ alloys

JANUARY VOLUME 85, NUMBER 3 1993

183 Proceedings—US–Japan Seminar

Jifan Hu and Zhenxi Wang — 185 Tendency of preferential occupation of transition elements on crystalline sites in rare earth–transition based compounds

Y. S. Tang, G. Jin and C. D. W. Wilkinson — 189 Conductance in nanometer scale poly-Si wire gate MOS field effect transistors

C. A. Randall, M. G. Matsko, W. Cao and A. S. Bhalla — 193 A transmission electron microscopy investigation of the R3m→R3c phase transition in $Pb(Zr,Ti)O_3$ ceramics

W. P. Gillin, I. V. Bradley, K. P. Homewood and R. P. Webb — 197 The effect of gallium implantation on the intermixing of InGaAs/GaAs strained quantum wells

Y. S. Tang, C. D. W. Wilkinson, C. M. Sotomayor Torres, D. W. Smith, T. E. Whall and E. H. C. Parker — 199 Optical properties of $Si/Si_{1-x}Ge_x$ heterostructure based wires

C. Quattrocchi, D. A. dos Santos and J. L. Brédas — 203 Theoretical characterization of ring torsional solitons in polyparaphenylene

J. Chen, G. Li, C. Li, G. C. Xiong, G. J. Lian and D. Yin — 207 Flux-creep-flow crossover in laser ablation YBCO thin film

J. Kong, B. P. Cheng, Y. P. Ge, Z. G. Zhao, X. K. Sun and Y. C. Chuang — 211 Thermal expansion anomalies of YCo_4B compound

M. E. Simón and A. A. Aligia — 213 Optical spectra of the Hubbard model within the alloy–analog approach

E. Sauvain, A. Mettler, N. Wyrsch and A. Shah — 219 Subband gap absorption spectra of slightly doped a-Si:H measured with constant photocurrent method (CPM) and photothermal deflection spectroscopy (PDS)

S. Katsumoto, N. Sano and S.-i. Kobayashi — 223 Electron propagation through a Fibonacci lattice

K. N. Shrivastava — 227 Novel aspects of the microwave absorption in the high temperature superconductors

C. M. J. Wijers, Th. Rasing and R. W. J. Hollering — 233 Second harmonic generation from thin slabs in the discrete dipole approach

S. Panwar and I. Singh — 239 Electronic specific heat of heavy fermion systems

T. Dosluoglu and R. Solanki — 243 Self-consistent calculations of carrier distribution and energy bands in InGaAs/InP *p–i–n* diodes

D. K. Gramotnev and M. L. Vyukov — 249 Stimulated back-scattering of surface electromagnetic waves

L. E. Bausá, E. Camarillo, J. García Solé, F. Jaque, R. Legros and A. Muñoz-Yagüe — 257 Site selection spectroscopy in $CaF_2:Nd^{3+}$ films grown by molecular beam epitaxy

J. M. Broto, J. C. Ousset, H. Rakoto, S. Askenazy, Ch. Dufor, M. Brieu and P. Mauret — 263 Magnetic properties of nanometric nickel particles

T. Z. Kachlishvili — 267 Relaxation processes and in-plane electron mobility limited by interface defects in CdTe–$Cd_{1-x}Mn_xTe$ quantum wells

C. A. Kuhnen and A. V. dos Santos — 273 Calculated electronic structure of $SnFe_3N$

S. K. Srivastava, S. K. Tripathi and A. Kumar — 281 Photocrystallization in amorphous thin films of $Se_{100-x}In_x$

E. Fortin and A. Serpi — 287 Influence of the substrate on the photoconductivity of InGaAs/GaAs quantum wells

JANUARY VOLUME 85, NUMBER 4 1993

J. Chen, E. Kemly, M. Croft, Y. Jeon, X. Xu, S. A. Shaheen and P. H. Ansari — 291 XAS studies of 1:2:2 transition metal compounds

T. Ruf, R. Wegerer, E. T. Heyen, M. Cardona and A. Furrer — 297 Crystal-field phonon interaction and in-plane charge transfer in $NdBa_2Cu_3O_{7-\delta}$

K. Takeda and K. Shiraishi — 301 Electronic structure of silicon–oxygen high polymers

D. R. dos Santos and I. L. Torriani — 307 Crystallite size determination in μc–Ge films by X-ray diffraction and Raman line profile analysis

W. B. Zhao, X. D. Zhang, Z. Y. Ye, J. L. Zhang, C. Y. Li, D. L. Yin, Z. N. Gu, X. H. Zhou and Z. X. Jin — 311 Epitaxial thin films of C_{70}: growth and structure characterization

G. M. Gusev, P. Basmaji, Z. D. Kvon, L. V. Litvin, Yu. V. Nastaushev and A. I. Toropov — 317 Magnetoresistance of two-dimensional electrons in a lateral lattice of antiwires

Y. Tanaka, A. Hasegawa and H. Takayanagi — 321 Energy spectrum of the quasiparticle in a quantum dot formed by a superconducting pair potential under a magnetic field

Z. Ikonić, G. P. Srivastava and J. C. Inkson — 327 Calculation of X-valley intersubband optical transitions linewidth in [111] grown AlAs/(GaAl) As quantum wells

C. L. Wang, Y. G. Wang, P. L. Zhang, W. L. Zhong and H. S. Zhao — 331 Elastic properties of sodium lithium niobate piezoelectric ceramics at low temperature

K. Miyake and C. M. Varma — 335 Many body effect on oscillatory properties of two-dimensional metals in a magnetic field

Biao Hao and Chang-de Gong — 341 Anomalous isotope effect due to linear-energy-dependent electronic density of states in high-T_c superconductors

K. Okamoto and D. Nishino — 343 $S = 1/2$ XY chain with the Ising bond alternation

J. Oswald, M. Nikl and J. Pangrác — 347 The luminescence behaviour of porous silicon layers

Xu Wu, J. P. Denis, G. Özen, Ph. Goldner and F. Pellé — 351 The blue up-conversion luminescence of Er^{3+} ions in vitroceramics doped with Yb^{3+} under infrared excitation

S. Wüchner, N. Keller, J. L. Tholence and J. Flouquet — 355 Magnetic properties of the heavy-fermion superconductors UPt_3 and URu_2Si_2

Z. C. Tao, M. Singh and H. Puszkarski — 361 Effect of impurity states on the electronic properties of delta doped semiconductor quantum well structures in the presence of a magnetic field

B. Deveaud, A. Chomette, D. Morris and A. Regreny — 367 Carrier capture in quantum wells

i Author Index Nos 1–4

FEBRUARY VOLUME 85, NUMBER 5 1993

P. Kumar, V. Pillai and D. O. Shah — 373 Preparation of $YBa_2Cu_4O_8$ superconductor from oxalate precursor under ambient pressure

C. K. Mathews, S. Rajagopalan, K. V. G. Kutty, R. Asuvathraman, N. Sivaraman, T. G. Srinivasan and P. R. Vasudeva Rao — 377 Crystal structures and thermal expansion of fullerenes

K. A. Müller, K. W. Blazey and Th. W. Kool — 381 Tetrahedrally coordinated Cr^{5+} in $SrTiO_3$

W. Hübner and L. M. Falicov — 385 Non-perturbative theory of spin-polarized electron-capture spectroscopy in ferromagnetic nickel

M. B. Harris, G. A. Stewart and D. C. Creagh — 389 Influence of hydrogenation on the structure of cubic Lu_6Fe_{23} and Y_6Fe_{23}

C. H. Rüscher and M. Götte — 393 The optical absorption of the high T_c superconductors $Y_1Ba_2Cu_3O_{7-\delta}$, $La_2CuO_{4+\delta}$ and $Bi_2Sr_2Ca_{1-x}Y_xCu_2O_{8+\delta}$

S. Ishibashi, M. Tokumoto, N. Kinoshita, N. Terada and H. Ihara — 397 Positron states in β-(BEDT-TTF)$_2I_3$

M. Hammam — 401 Arsenic-selenium non-stoichiometric compounds prepared by glow-discharge technique

W. Liang and M.-H. Whangbo — 405 Conductivity anisotropy and structural phase transition in covellite CuS

A. Bifone — 409 NMR of platinum catalysts: a tight-binding model for Knight shift and line shape

D. Bravo and F. J. López — 415 Identification of Cr^{3+} impurities in heavily Cr-doped $Bi_4Ge_3O_{12}$ single crystals

J. L. Oddou, C. Jeandey, R. Ballou, J. Deportes and B. Ouladdiaf — 419 Mössbauer investigation of the peculiar magnetism of $Tb(Mn_{1-x}Fe_x)_2$ at small substitution of Fe for Mn

U. Puntambekar, J. M. Recio and R. Pandey — 423 Defect energy calculations of alkali chlorides using *ab initio* potentials

A. I. Belyaeva, S. V. Vojtsenya, V. P. Yuriyev, M. A. Obolenskii and A. V. Bondarenko — 427 Twin boundaries role in superconducting properties formation of single crystals $YBa_2Cu_3O_{7-x}$

V. Gayathri and S. Balasubramanian — 431 Two-dimensional D^- centre

N. Zekri, A. Brezini and F. Hamdache — 435 Theoretical model of the density of states of random binary alloys

E. V. Charnaya, B. F. Borisov, T. Krajewski and A. K. Radjabov — 443 Sound velocity hysteresis in the high temperature incommensurate phase range of $LiKSO_4$ crystal

K. B. Garg, N. L. Saini, N. Merrien, F. Studer, S. Durcok and G. Tourillon — 447 XAS study of hole density and symmetry in a $Bi_2Sr_2CaCu_2O_{8+\delta}$ single crystal

X. Wei, S. Jeglinski, O. Paredes, Z. V. Vardeny, D. Moses, V. I. Srdanov, G. D. Stucky, K. C. Khemani and F. Wudl — 455 Studies of photoexcitations in C_{70} by optically detected magnetic resonance

O. Cozar, I. Ardelean, S. Simon and L. David — 461 ESR studies of Mo^{5+} ions in potassium–borate and soda–phosphate glasses

FEBRUARY VOLUME 85, NUMBER 6 1993

M. Nikl, K. Polak and J. Rosa — 467 CuCl quantum dots in CuCl-doped NaCl crystals

S. Shimomura, Y. Fujii, S. Nozawa, K. Kikuchi, Y. Achiba and I. Ikemoto — 471 Pressure-induced phase transition in an orthorhombic C_{60} crystal

A. Arbaoui, A. Dinia and P. Panissod — 475 Oscillatory magnetoresistance of Co/Ru superlattices

G. Demazeau, Duk-Young Jung, J.-P. Sanchez, E. Colineau, A. Blaise and L. Fournes — 479 Iridium(VI) stabilized in a perovskite-type lattice: Ba_2CaIrO_6

P. Thuéry and Z. Zolnierek — 485 Magnetic structure of $UCo_{1.5}Sn_2$

S. Labdi, S. Megtert and H. Raffy — 491 Superconducting fluctuation study above T_c of Bi(Pb)–Sr–Ca–Cu–O thin films made by sputtering

P. Chiaradia, A. I. Shkrebtii, C. Goletti, Wang Jian and R. Del Sole — 497 Polarization-dependent surface transitions at Sb/GaAs(110)

M. Affronte, J. Marcus and C. Escribe-Filippini — 501 Transport properties of $Ba_{1-x}K_xBiO_3$ single crystals

K. Vacek, A. Okiji and H. Kasai — 507 Ballistic transport in quantum wires with periodic bend structure

I. E. Bulyzhenkov — 513 Dispersion of transverse sound in the model of layered high-T_c superconductors

M. Miljak, V. Zlatić, I. Kos, J. D. Thompson, P. C. Canfield and Z. Fisk — 519 Temperature dependent anisotropy of normal-state magnetic susceptibility of metallic copper oxides

S. I. Radautsan, I. M. Tiginyanu, V. V. Ursaki, F. P. Korshunov, N. A. Sobolev and E. A. Kudryavtseva — 525 The influence of isochronous annealing upon the near-band-edge photoluminescence spectra of the electron-irradiated *n*-InP

A. Srinivasa Rao, J. Lakshmana Rao and S. V. J. Lakshman — 529 Electron paramagnetic resonance and optical absorption spectra of Cr^{3+} ions doped alkali zinc borosulphate glasses

Shaozhong Li and J. B. Khurgin — 535 Carrier filtering in type II superlattices

R. Tommasi, M. Lepore and I. M. Catalano — 539 Two-photon absorption coefficient spectrum in CdSSe nanocrystals by nonlinear luminescence technique

F. J. Berry, E. M. Forgan and C. D. Gibbs — 545 Absence of the electronic effect in the metal–metal bonding of tellurium analogues of the Chevrel- and related-phases

I. Kiflawi, C. M. Welbourn and G. S. Woods — 551 One-phonon absorption by type IIa diamonds

FEBRUARY VOLUME 85, NUMBER 7 1993

E. García-Matres, J. Rodríguez-Carvajal, J. L. Martínez, A. Salinas-Sánchez and R. Sáez-Puche — 553 Magnetic structure of Ho_2BaNiO_5

P. Odier, J. M. Bassat, J. C. Rifflet and J. P. Loup — 561 On thermo-physical properties of $La_{2-x}NiO_{4+\delta}$, $\delta \geq 0$ or < 0

C. Pinettes and C. Lacroix — 565 Antiferromagnetic instabilities of the Hubbard model on the triangular lattice

T. L. Choy and Y. Y. Yeung — 569 Calculations of vacancy induced properties in palladium using the decoupling transformation approach

S. Yamada, M. Yamamoto and K. Aihara — 573 Boundary-controlled quantum transport in narrow wires

O. Laborde, B. Souletie, J. C. Martinez, H. Borges, J. Beille, J. J. Capponi and O. Chmaissem — 579 Pressure effects, anisotropic transport properties and irreversibility line of $Pb_2Sr_2Y_{1-x}Ca_xCu_3O_8$ crystals

W. Hilczer, S. K. Hoffmann, J. Goslar, J. Tritt-Goc and M. Augustyniak — 585 Electron spin echo studies of spin-lattice and spin–spin relaxation of SeO_3^- radicals in $(NH_4)_3H(SeO_4)_2$ crystal

A. Sacuto, M. Balkanski and O. Gorochov — 589 Cu–O chains contribution to the electronic Raman scattering of a $YBa_2Cu_3O_7$ single crystal

H. Rübel, J. Fölsch and H. Schade — 593 Hydrogen bonding configurations in amorphous silicon carbon alloys and their impact on the silicon carbon stretching vibrations

H. Mutka, C. Payen and P. Molinié — 597 Finite segments, "free spins" and random exchange in spin $S = 1$ quasi one-dimensional antiferromagnets

I. Jejina, H. Lorenz, J. P. Kotthaus, S. Bakker and T. M. Klapwijk — 601 The transition from a two-dimensional to a zero-dimensional electron system on silicon

J. Richard, J. Chen and S. N. Artemenko — 605 Narrow-band "noise" in $NbSe_3$ as a function of magnetic field and temperature: a reassessment

Hoon-Kyun Na and Pong-Kyun Shon — 609 A Raman scattering study of CdTe/*p*-(1 1 1)InSb heterointerfaces grown by r.f. sputtering in high vacuum

Yu. V. Nazarov — 613 Bloch oscillations without quantum coherency in Josephson tunnel junction

H.-M. Kagaya and T. Soma — 617 Compression effect on specific heat and thermal expansion of Si and Ge

S. M. Martina and B. Sukumar — 623 Polarizability of a carrier in a GaAs quantum dot

Th. Östreich and K. Schönhammer — 629 Numerical study of the a.c.-Stark shift in quasi one-dimensional ring clusters

T. W. Kim and H. L. Park — 635 Observation of two valence states of Eu in a $SrS_xO_{1-x}:Eu_y$ phosphor

S. Mizuno and S-i. Tamura — 639 Transmission of sub-THz acoustic phonons in a Kronig–Penny system for phonons

Yu. V. Gomeniuk, V. Z. Lozovski, V. S. Lysenko and I. P. Tyagulski — 643 Excess conductivity and thermally activated dissipation studies under strong electrostatic field in $YBa_2Cu_3O_{7-\delta}$ thin films

J. Prakash — 647 Thermoluminescence glow curve with second order kinetics

Ka-Di Zhu and Shi-Wei Gu — 651 Shallow donor impurities in a quantum box

T. Rogelet, S. Söderholm, M. Qvarford, N. L. Saini, U. O. Karlsson, I. Lindau and S. A. Flodström — 657 Electronic structure of NiO (1 0 0) with adsorbed Na

FEBRUARY VOLUME 85, NUMBER 8 1993

S. Kamoun, A. Daoud, R. Von Der Muhll et J. Ravez — 661 Etude des transitions de phases de $NH_3(CH_2)_2NH_3(H_2PO_4)_2$ par mesures optique, dielectrique et de thermocourant

P. Calvani and S. Lupi — 665 Extra-Drude absorption and critical temperature in superconducting cuprates

D. K. Kharat, G. S. Dhami, S. K. Date, A. R. Kulkarni and R. D. A. Paulamer — 671 AC impedance spectroscopic characterization of 10 mol% MgO doped ZnO varistors

T. Leventouri, F. D. Medina and B. D. Landreth — 675 The effect of partially oriented precursors on the melt-textured growth of $YBa_2Cu_3O_{6+x}$

P. Hong and G. B. Olson — 681 Estimation of the domain-boundary energy by Landau–Ginzburg model for cubic to tetragonal transformations

Hailiang Wang, Deqing Zhang, Meixiang Wan and Daoben Zhu — 685 Crystal structures of NTDIOO derivatives

H. Lou, W. C. Chou, N. Samarth, A. Petrou and J. K. Furdyna — 691 Observation of novel type-I excitons in type-II superlattices

J. I. Gorina, G. A. Kaljujnaia, V. I. Ktitorov, V. P. Martovitsky, V. V. Rodin, V. A. Stepanov, A. A. Tsvetkov and S. I. Vedeneev — 695 Superconducting and structural properties of homogeneous BiSrCaCuO (2 2 1 2) single crystals prepared by solution growth

G. S. Tripathi and S. Mohapatro — 701 Theory of the electronic specific heat: effect of electron–electron interactions

A. B. Kuklov — 707 Incoherent excitonic Fermi liquid phase

M. Breza — 713 On the axial oxygen position in Y–Ba–Cu–O superconductors

D. Sorescu, M. Sorescu, I. N. Mihailescu, D. Barb and A. Hening — 717 Multipulse excimer laser irradiation of Fe–B amorphous alloys

A. N. Trukhin — 723 Luminescence of a self-trapped exciton in GeO_2 crystal

G. F. Lorusso, V. Capozzi, P. Milani, A. Minafra and D. Lojacono — 729 UV spectra of graphite microparticles produced by laser vaporization

E. Belorizky, M. Jeannin, P. Rey and A. Rassat — 735 Exchange coupling determination in a three spin 1/2 cluster without symmetry

i Author Index Nos 1–8

MARCH VOLUME 85, NUMBER 9 1993

J. Q. Li, W. J. Zhu, Z. X. Zhao and D. L. Yin — 739 Incommensurate modulated structure in $YSr_2Cu_{2.5}B_{0.5}O_y$

Yu. A. Hadjiiskii, R. Z. Levitin, B. V. Mill, I. V. Paukov, M. N. Popova and V. V. Snegirev — 743 Spectral and magnetic studies of nickelates Lu_2BaNiO_5 and Yb_2BaNiO_5

J. Koshy, P. R. S. Warrier, Y. P. Yadava, K. S. Kumar and A. D. Damodaran — 749 High temperature superconductivity in $YBa_2Cu_3O_{7-\delta}$–YBa_2SbO_6 system by rapid quenching in air

A. Scholz, B. Schehr and B. Schröder — 753 Metastability in *p*- and *n*-type *a*–Si:H investigated by keV-electron irradiation

H. Yokomichi and K. Morigaki — 759 Clustered dangling bonds in *a*–Si:H as elucidated by ENDOR measurements

B. P. Khrustalev and V. G. Pozdnyakov — 763 Spin-reorientation transition in amorphous Dy–Co films in high magnetic fields

J. Ortíz-Saavedra, F. Aguilera-Granja, J. Dorantes-Dávila and J. L. Morán-López — 767 The *s* and *p* character of the electronic structure of C_{20}, C_{60} and C_{70}

R. Reiche, L. A. O. Nunes, C. C. Carvalho, Y. Messaddeq and M. A. Aegerter — 773 Blue and green upconversion in Er^{3+}-doped fluoroindate glasses

J. Ma, V. B. Cajipe, Q. Zhu, J. E. Fischer, C. Mathis and B. M. Powell — 779 Broken symmetry interchain packing in lithium-doped polyacetylene: a combined X-ray/neutron diffraction study

M. Koralewski, B. Noheda, G. Lifante and J. A. Gonzalo — 783 Effect of uniaxial pressure on the ferroelectric phase transition of DTGS

J. Ph. Schillé, Ph. Sainctavit, Ch. Cartier, D. Lefebvre, C. Brouder, J. P. Kappler and G. Krill — 787 Magnetic circular X-ray dichroism at high magnetic field and low temperature in ferrimagnetic $HoCo_2$ and paramagnetic Ho_2O_3

B. Rousseau and H. Estrade-Szwarckopf — 793 Photoelectron core level spectroscopy study of K- and Rb-graphite intercalation compounds—II. Clean surfaces study

X. Le Cleac'h — 799 Photoconductivity transient measurements on III–V semiconducting layers using a microwave technique

S. S. Bedi, M. Singh and J. Singh — 805 Temperature dependence of the second order elastic constants of fluorite solids

Daejin Seong, SangSuk Lee and Dojun Youm — 811 Exponential decrease of the XPS signal of substrate with the initial growth of $Y_1Ba_2Cu_3O_{7-\delta}$ overlayer

I. Pelant, D. Ohlmann, O. Crégut, R. Granger, R. Triboulet and B. Hönerlage — 815 Optical nonlinearities of ZnCdTe at room temperature

E. Aubay and D. Gourier — 821 Conditions for bistable hysteresis of conduction electron spin resonance in solids

A. O. Govorov and A. V. Chaplik — 827 Inelastic light scattering by spin polarized electron gas

829 Erratum

MARCH VOLUME 85, NUMBER 10 1993

R. Kato, H. Sawa, S. Aonuma, M. Tamura, M. Kinoshita and H. Kobayashi — 831 Preparation and physical properties of an alloyed $(DMe\text{-}DCNQI)_2Cu$ with fully deuterated DMe-DCNQI (DMe-DCNQI = 2,5-dimethyl-N,N′-dicyanoquinonediimine)

R. V. Kasowski, S.-I. Hatta and W. Y. Hsu — 837 Computation of antiferromagnetic properties of orthorhombic $CaCuO_2$

N. Taniguchi and E. Hanamura — 843 Localized–delocalized transition of an exciton studied by generation of phase-conjugated waves

S. K. Malik, H. Jhans, W. B. Yelon and J. J. Rhyne — 849 Structural and magnetic studies on $PrBa_2Cu_2NbO_{8-y}$

S. I. Gubarev, T. Ruf, M. Cardona and K. Ploog — 853 Resonant magneto-luminescence of high quality GaAs

V. F. Aguekian, L. K. Gridneva and A. Yu. Serov — 859 The magnetic polaron effect in diluted magnetic semiconductor $Cd_{1-x}Mn_xTe$ with high concentration of manganese

A. V. Soldatov, S. Della Longa and A. Bianconi — 863 Relevant role of hydrogen atoms in the XANES of Pd hydride: evidence of hydrogen induced unoccupied states

R. I. Ionov — 869 Observation of folded acoustic phonons by Raman scattering in amorphous chalcogenide superlattices

Yu. E. Lozovik and O. I. Notych — 873 Magnetization plateaus of frustrated antiferromagnet and analogy with FQHE

K. Jacob John, B. Pradeep and E. Mathai — 879 Electrical properties of bismuth selenide (Bi_2Se_3) thin films prepared by reactive evaporation

Yang-Lae Lee, Chang-Dae Kim, Han-Jo Lim, Hae Yong Park, Jae-Eun Kim and Wha-Tek Kim — 883 Optical absorption of Co^{2+} ions in $HgGa_{2-x}In_xSe_4$ ($0.0 \leq x \leq 2.0$) solid solution

M. C. R. Shastry, M. Ménétrier and A. Levasseur — 887 Thermal and electrical properties of new glasses in the binary Li_2S–As_2S_3 system

K. Kadir, P. Lundqvist, D. Noréus and Ö. Rapp — 891 New stoichiometric hydride superconductor: $NaPd_3H_2$

E. Flouda, A. Travlos and C. Papastaikoudis — 895 Coexistence of interaction and localization effects in Pd thin films

A. Kimura, S. Suga, T. Matsushita, T. Kaneko and T. Kanomata — 901 Unoccupied electronic states and exchange splitting of M_2As (M = Cr, Fe, Mn) and MnAlGe

MARCH VOLUME 85, NUMBER 11 1993

H. Misiorek, A. Jeżowski, J. Mucha and N. I. Sorokina — 907 Hysteresis of thermal conductivity and electrical resistivity of niobium hydrides

R. Ranganathan, L. S. Vaidyanathan, A. Chakravarti and G. Rangarajan — 911 Reentrant magnetic behaviour in $(NiFe)_{25}Au_{75}$ alloy

Kim-Chau Ung, S. Mazumdar and D. K. Campbell — 917 Coexisting CDW and BOW in organic conductors with non-half-filled bands

T. Hempel, O. Schoenfeld and F. Syrowatka — 921 Needle-like crystallization of Ni doped amorphous silicon thin films

C. Marin, V. V. Moshchalkov, J. Y. Henry and J. Rossat-Mignod — 925 Field enhancement of the diamagnetic onset temperature in a $YBa_2Cu_3O_{6.45}$ single crystal

J. Ranninger — 929 Polaron induced phonon modes in systems with strong electron-lattice coupling

L. Stauffer, S. Van, D. Bolmont, J. J. Koulmann and C. Minot — 935 Non-equivalence of the adatoms in the DAS model of the Si(111)7 × 7 surface. An extended Hückel model calculation

G. U. Sumanasekera, B. D. Williams, D. V. Baxter and J. P. Carini — 941 High frequency magnetoconductivity of disordered copper films

W. B. Zhao, X. D. Zhang, Z. Y. Ye, J. L. Zhang, C. Y. Li, D. L. Yin, Z. N. Gu, X. H. Zhou and Z. X. Jin — 945 Synthesis of K_3C_{60} single crystal thin films with high critical currents

T. Miyazaki, S. Matsuzaki, K. Ichimura and M. Sano — 949 Mixed-valence TTF intercalated in lamellar $MnPS_3$ crystals

L. H. F. Andrade, M. A. Sacilloti and C. H. Brito Cruz — 953 Intervalley scattering in indirect gap $Al_{0.48}Ga_{0.52}As$ alloy

Z. H. Lu, T. K. Sham and P. R. Norton — 957 Interaction of Au on Si(100) studied by core level binding energy shifts

S. Darracq, S. Matar and G. Demazeau — 961 Correlations between the structural distortion of $LaCuO_3$ lattice and the resulting physical properties

G. Hastreiter and J. Keller — 967 Electronic susceptibility in double-layered high-temperature superconductors: plasmons and renormalization of infrared-active phonons

R. Seshadri, A. Rastogi, S. V. Bhat, S. Ramasesha and C. N. R. Rao — 971 Molecular ferromagnetism in C_{60}.TDAE

L. Force and J. Bok — 975 Superconductivity in two dimensional systems: Van Hove singularity and Coulomb repulsion

Ji-Jun Sun, De-Sheng Xue, Xiao-Zhou Zhang, Fa-Shen Li, Bao-Gen Shen, Lin-Shu Kong and Lei Cao — 979 Mössbauer study of $Gd_2Fe_{17}C_{2.0}$ compound prepared by the melt quenching

S. V. Nistor, M. Stefan and I. Ursu — 983 Observation of hole trapped Tl^{2+} centers in $PbCl_2$:TlCl crystals

P. G. Baranov and A. G. Badalyan — 987 Magnetic resonance and magnetic ordering in the oxygen-deficient $RBa_2Cu_3O_x$ superconductors

A cumulative Author Index appears in Numbers 4, 8 and 12 of each Volume

MARCH VOLUME 85, NUMBER 12 1993

Z. Kozioł, Z. Tarnawski and J. J. M. Franse — 991 Study of the remanent magnetization of $Bi_2Sr_2CaCu_2O_8$ single crystals by means of a Hall probe

P. Blaudeck, Th. Frauenheim, G. Jungnickel and U. Stephan — 997 Stability and structure of amorphous hydrogenated carbons: a molecular dynamic investigation

I. A. Garifullin, N. N. Garif'yanov, V. Yu. Maramzin and G. G. Khaliullin — 1001 Antiferromagnetic correlations in Na_xWO_3 of superconducting compositions

H. Ito, H. Kaneko, T. Ishiguro, H. Ishimoto, K. Kono, S. Horiuchi, T. Komatsu and G. Saito — 1005 On superconductivity of the organic conductor α-(BEDT-TTF)$_2$KHg(SCN)$_4$

Lin-shu Kong, Hua-yang Gong, Bao-gen Shen, Lei Cao and Yi-long Chen — 1011 Magnetic and Mössbauer effect study of $Er_2Fe_{17}C_2$

J. Reinke, S. Greulich-Weber and J.-M. Spaeth — 1017 Optically detected electron paramagnetic resonance of a vanadium impurity in 6H-silicon carbide

R. G. Alonso, A. Mascarenhas, S. Froyen, G. S. Horner, K. Bertness and J. M. Olson — 1021 Polarized piezomodulated reflectance study of spontaneous ordering in $GaInP_2$

N. F. Uvarov, E. F. Hairetdinov, J. M. Reau and P. Hagenmuller — 1025 Analysis of ac-conductivity data of $Ba_{1-x}Bi_xF_{2+x}$ solid solutions

H. J. Zhang, P. Boutinaud, A. Garcia, J. P. Chaminade and C. Fouassier — 1031 Luminescence of the cadmium oxyfluoromolybdate, $CdMoO_3F_2$

I. H. Ibrahim — 1035 Magnetic susceptibility and order parameter of 4-*n*-pentylbiphenyl-4′-*n*-butylbenzoate

R. Chaudhury and J. P. Carbotte — 1039 Stability of marginal Fermi liquid

A. R. Hassan — 1043 Biexciton formation by two-photon absorption in quantum wells

J. L. Zhang and B. R. Li — 1047 Synthesis and unit cell data of a new cadmium antimonate electronic ceramic

F. A. Oliveira — 1051 How to build the Green's function for the elementary excitations in a film once we know those for a single interface

S. R. Vishwakarma, Rahmatullah and H. C. Prasad — 1055 Heterojunction solar cell prepared by chemical vapour deposition of doped SnO_2 on textured silicon

V. M. Gasparian and A. Gh. Khachatrian — 1061 Resistance of a one-dimensional finite chain of periodically arranged random scatterers

N. A. Azarenkov, K. N. Ostrikov and O. A. Osmayev — 1065 Self-interaction of surface polaritons at the narrow-gap *n*-type semiconductor–metal interface

1071 Author Index Nos 1–12

1079 Erratum

Reproduced with the permission of Pergamon Press Inc., by University Microfilms Inc. Duplication or resale without permission is prohibited.